

Council/Agency Meeting Held: _____		City Clerk's Signature _____
Deferred/Continued to: _____		
<input type="checkbox"/> Approved	<input type="checkbox"/> Conditionally Approved	<input type="checkbox"/> Denied
Council Meeting Date:	04/04/2005	Department ID Number: PW 05-018

CITY OF HUNTINGTON BEACH REQUEST FOR CITY COUNCIL ACTION

SUBMITTED TO: HONORABLE MAYOR AND CITY COUNCIL MEMBERS

SUBMITTED BY: *Penelope Culbreth* PENELOPE CULBRETH-GRAFT, CITY ADMINISTRATOR

PREPARED BY: PAUL EMERY, ACTING DIRECTOR OF PUBLIC WORKS

SUBJECT: **Approve Contract CP-0410 Between the Orange County Sanitation District and the City for the Cooperative Projects Program**

2005 MAR 23
 HUNTINGTON BEACH, CA
 CITY CLERK

Statement of Issue, Funding Source, Recommended Action, Alternative Action(s), Analysis, Environmental Status, Attachment(s)

Statement of Issue:

To be eligible for grant funding, the City is required to enter into an agreement with the Orange County Sanitation District (District) for the FY 2004/05 Cooperative Projects Program.

Funding Source:

Funds in the amount of \$50,000 are available from the Sewer Service Charge, Account 51189002.82500. Up to \$25,000 will be reimbursed by the District upon completion of the monitoring project.

Recommended Action: Motion to:

Approve and authorize the Mayor and City Clerk to execute the Orange County Sanitation District Cooperative Projects Program Contract No. CP-0410.

Alternative Action(s):

Reject the agreement with the Orange County Sanitation District Cooperative Projects Program and direct staff on how to proceed with the project. This action could result in the loss of up to \$750,000 in future grant funds.

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REQUEST FOR ACTION

MEETING DATE: 04/04/2005

DEPARTMENT ID NUMBER:PW 05-018

Analysis:

The District's Cooperative Projects Program provides cities that operate within their service area an opportunity to receive up to 50% of project funds from the District to help eliminate or reduce water inflow and/or groundwater infiltration. The benefit of the project is to reduce the inflow of groundwater into the City and District's collection system, thus limiting the amount of excess water flowing into the processing plant and requiring treatment.

On August 16, 2004, the City submitted an Orange County Sanitation District Cooperative Projects Program grant application for rehabilitation of over 31,000 lineal feet of sewer mains in an area generally bounded by Hamilton Avenue, Brookhurst Street, Banning Avenue and Bushard Street. However, in January 2005 the District informed the City that they would only approve the flow monitoring phase of the project at this time.

Therefore, staff now requests City Council authorization to proceed with the flow-monitoring phase of the project. The District requires the City Council to approve the submittal of the project by entering into the Cooperative Projects Program contract.

The flow monitoring phase of the project, which this agreement pertains to, will reimburse up to \$25,000 of the cost for conducting the required flow monitoring to determine the cost/benefit of the project. If the results of the monitoring determine that the cost/benefit of the project is not acceptable to the District, the contract will be considered fulfilled and closed. However, if the results of the monitoring determine an acceptable cost/benefit to the District, the City will seek additional funds from the District for the rehabilitation phase, which is the actual design and construction. Prior to commencement of the rehabilitation phase, staff will seek authorization from the City Council to proceed.

Public Works Commission Action:

Not required.

Environmental Status:

Not applicable.

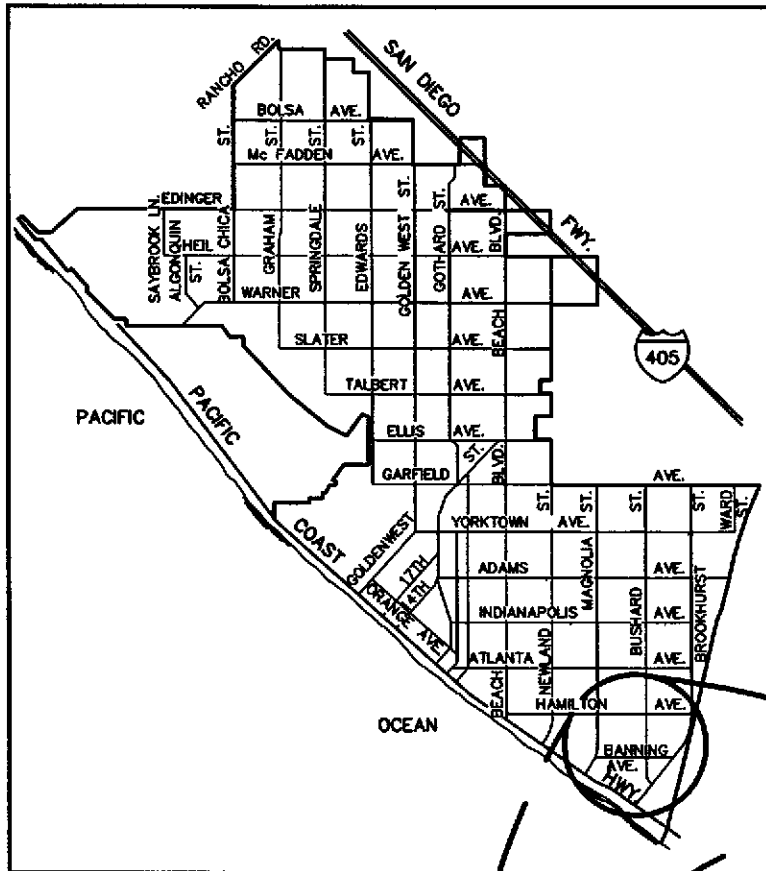
Attachment(s):

E-4.2

City Clerk's Page Number	No.	Description
3	1.	Location Map
5	2.	Contract No. CP-0410 (2-copies)

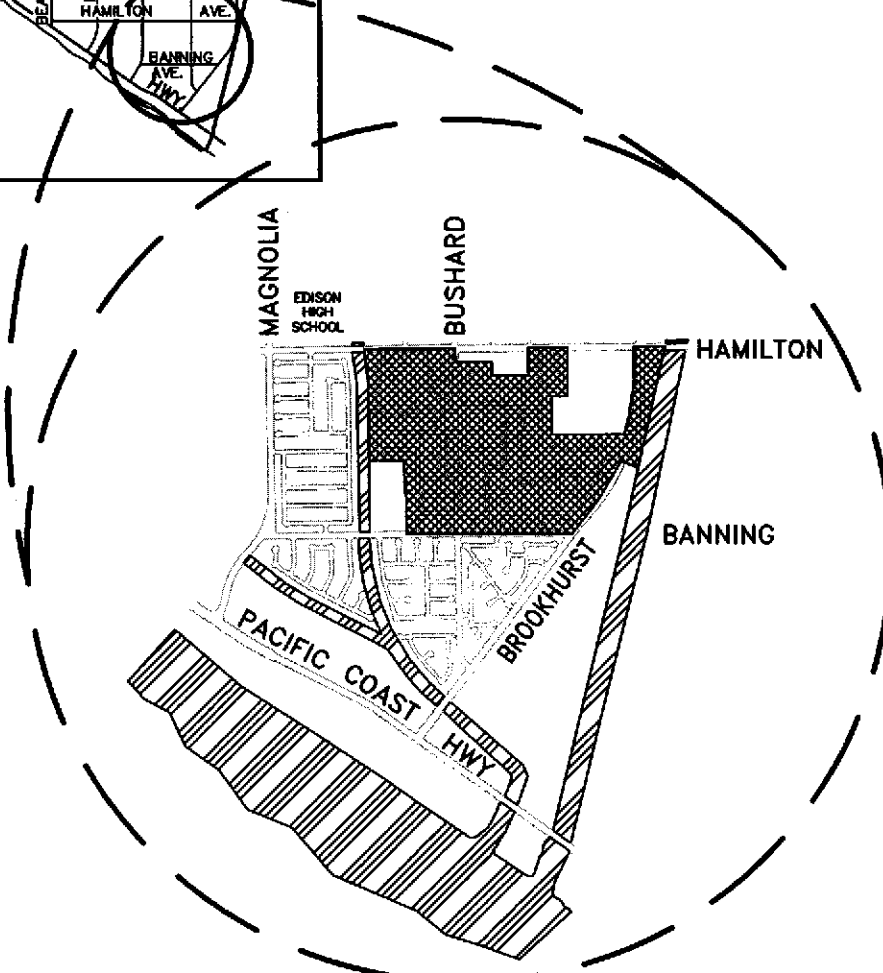
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ATTACHMENT #1



LEGEND

PROJECT AREA 



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LOCATION MAP

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS



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ATTACHMENT #2

**ORANGE COUNTY SANITATION DISTRICT
COOPERATIVE PROJECTS PROGRAM CONTRACT**

RECITALS

WHEREAS, this Contract is entered into on _____, 2005 by and between the Orange County Sanitation District (hereinafter referred to as "DISTRICT") whose address is P.O. Box 8127, Fountain Valley, California 92728, and the City of Huntington Beach (hereinafter referred to as "AGENCY"); and

WHEREAS, DISTRICT is a duly organized County Sanitation District, existing pursuant to the County Sanitation District Act, California Health and Safety Code section 4700, et seq., providing for the ownership, operation, and maintenance of wastewater collection, treatment, and disposal facilities within Orange County, California; and

WHEREAS, DISTRICT implemented a Cooperative Projects Program to co-fund wastewater projects sponsored by agencies located within DISTRICT's service area. DISTRICT's Board of Directors has the authority to enter into Cooperative Projects Program contracts to implement the program. DISTRICT's Board of Directors has authorized a contract with AGENCY for the project described in Exhibit "A" (Project Description/Statement of Work, hereinafter the "Project"), attached hereto and by reference made a part of this Contract; and

WHEREAS, AGENCY has met the requirements for receipt of Cooperative Projects Program Funds as set forth in AGENCY'S Cooperative Projects Program Application.

NOW THEREFORE, the parties agree as follows:

AGREEMENT

1. AUDIT - AGENCY shall at least once every year, or within two (2) years of the termination of this Contract if the term is less than two (2) years, be subject to an audit by DISTRICT, or its authorized representative, to determine if the revenues received by AGENCY were appropriately spent for the Project described in Exhibit "A". DISTRICT shall coordinate such audit through AGENCY'S audit staff. If an amount is found to be inappropriately expended, DISTRICT may withhold revenue from AGENCY in the amount equal to the amount that was inappropriately expended. Such withholding shall not be construed as DISTRICT's sole remedy and shall not relieve AGENCY of its obligation to perform under the terms of this Contract.
2. WATER CONSERVATION BMP - AGENCY agrees to adopt the Best Management Practices (BMP) for water conservation, more particularly described in Exhibit "D" (Water Conservation - Best Management Practices) attached hereto and by reference made a part of this Contract.
3. TERM - The term of this Contract is from date of contract execution by both parties through completion of the Project or June 1, 2006, whichever occurs first

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unless terminated earlier as provided for in Paragraph 4 below. AGENCY must submit all Project requests for reimbursement to DISTRICT within sixty (60) days of completion of project deliverables. Failure to meet the project completion deadline will result in forfeiture of Cooperative Projects Program funding, provided, however, that in the event that AGENCY is unable to complete the Project within the term required herein due to unforeseen or unavoidable circumstances, or by mutual agreement by both AGENCY and DISTRICT. DISTRICT may extend the term of this Contract for an additional period of up to 18 months subject to approval by DISTRICT's General Manager. Such extension shall be made only by written agreement signed by both parties hereto. Any extensions beyond 18 months may be approved only by DISTRICT's Board of Directors.

4. TERMINATION - In the event that any party fails to comply with any term or condition of this Contract, or fails to provide the services in the manner agreed upon by the parties, including, but not limited to, the requirements as set forth in Exhibit A, and Exhibit "C" (Project Milestone Schedule), attached hereto and by reference made a part of this Contract, the failure shall constitute a material breach of this Contract. The non-breaching party shall have the sole and exclusive option either to notify the breaching party that it must cure this breach within 15 days or provide written notification of its intention to terminate this Contract upon 30 days written notice. Notification shall be provided in the manner set forth in Paragraph 21 below. Termination shall not be the exclusive remedy of the non-breaching party. The non-breaching party shall have the right to seek any and all remedies provided by law. DISTRICT reserves the right to terminate this Contract without cause and shall reimburse AGENCY for actual costs incurred in performance of this Contract through the effective date of termination if DISTRICT terminates this Contract without cause. DISTRICT may terminate this Contract at any time, without cause, upon giving AGENCY 30 days written notice.
5. INSURANCE - Prior to the start of this Contract, AGENCY shall furnish evidence of standard form of commercial or comprehensive general liability insurance with a combined single limit per occurrence (general and automotive) of One Million Dollars (\$1,000,000.00). AGENCY shall maintain such coverage during the term of this Contract and any extensions thereof. Subject to notice to and approval of DISTRICT, Agency may fulfill its insurance obligations through one of the following: (i) self-insurance; (ii) by providing coverage through a joint powers insurance authority (JPIA), which is duly formed under the laws of the State of California; or (iii) utilizing a combination of self-insurance and JPIA coverage. AGENCY shall require any Contractor performing services funded by this Contract to also provide evidence of standard form commercial or comprehensive general liability insurance for any Project requiring work to be performed in a public right-of-way. The policy shall have a combined single limit of Two Million Dollars (\$2,000,000.00) per occurrence for bodily injury, including death, personal injury, property damage, and products liability, with Five Million Dollars (\$5,000,000.00) general policy aggregate; or, alternatively Two Million Dollars (\$2,000,000.00) aggregate separate for this Contract. AGENCY shall require its contractor to maintain such coverage during the duration of its Project work. DISTRICT shall be named as an additional insured by endorsement to each liability policy referred to herein and each policy shall require thirty (30)

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days advance written notice of modification or termination of any such insurance shall be given by the insurer to DISTRICT. Any modification of the insurance provided shall be subject to pre-approval by DISTRICT. If AGENCY, or its contractor, fails to maintain the required insurance coverage, DISTRICT reserves the right to terminate this Contract or purchase such additional insurance and bill AGENCY or deduct the cost thereof from any payments owed to AGENCY. DISTRICT shall have no obligation, however, to purchase additional insurance.

6. INDEMNIFICATION - AGENCY agrees to hold harmless, defend, and indemnify DISTRICT, its officers, employees, agents, representatives, and successors-in-interest against any and all loss, damage, cost, or expense which DISTRICT, its officers, employees, agents, representatives, and successors-in-interest may incur or be required to pay by reason of any injury or property damage caused or incurred by AGENCY, its employees, contractors, sub-agency's contractors, or agents in the performance of this Contract, including but not limited to, any contract between Agency and any third party for the performance of work as part of the Project. Sub-agency means an agency, other than the AGENCY, that either performs or hires contractor(s) to perform work on the Project.

7. PAYMENT

- A. DISTRICT shall pay AGENCY a Firm Fixed Price of Twenty-Five Thousand Dollars (\$25,000.00) upon completion of the Project on a reimbursement basis. Any funds not expended upon early Contract termination or Contract completion shall revert back to the Cooperative Projects Program. Payment of charges shall be made by DISTRICT to AGENCY within 60 days after approval by DISTRICT of an itemized invoice prepared and furnished by AGENCY to DISTRICT.
- B. An invoice submitted to DISTRICT for payment must be prepared in duplicate, on AGENCY letterhead, and list DISTRICT Contract number, period covered by invoice, and AGENCY'S Employer Identification Number and be submitted to: Orange County Sanitation District, P.O. Box 8127, Fountain Valley, CA 92728. Attn: Accounts Payable Department. Proof of project expenditures must be provided with the AGENCY invoice. As proof of project expenditures, AGENCY may provide copies of checks or warrants with corresponding invoices or purchase orders, receipts, and labor reports. For construction projects, AGENCY is required to provide to the DISTRICT a copy of the check to the contractor showing payment of final retention.
- C. No funds shall be paid to AGENCY pursuant to this Contract, until the Project, as set forth in Exhibit A, is completed and proof of completion is provided to DISTRICT. If the Project as described in Exhibit A is not completed and satisfactory proof of completion is not provided to DISTRICT, no monies shall be due and payable to AGENCY. Proof of completion shall include a Final Report detailing the work that was done.
- D. For closed circuit television monitoring ("CCTV") projects, proof of completion shall also include a notarized letter from the City Engineer, Public Works Director, or City Manager affirming that the monitored

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sewers were constructed in or before 1960 or meet one or more of the following criteria:

- (1) Pipe material must be clay tile or glazed clay, asbestos cement, uncoated concrete, or Orangeburg;
 - (2) Joint configuration with high risk (i.e., high inflow/infiltration potential) must be hand mortared, packed joint with oakum-asphaltic materials, jute, or other hand packed materials; and
 - (3) Other high-risk materials must be approved by the DISTRICT before the AGENCY commences work.
 - (4) Sewers are located in high groundwater or in areas which show evidence of high infiltration as determined from the DISTRICT's long-term flow monitoring.
- E. For closed circuit television monitoring ("CCTV") projects, the methodology of evaluation, data collection, and reporting criteria used for the National Association of Sewer Service Companies NASSCO certification shall be practiced for all CCTV evaluations. A structural pipe rating for each sewer segment shall be assigned using the NASSCO PACP condition grading system.
- F. Additional Cooperative Projects Program Funds will not be available to fund Project cost overruns. Any Project cost overruns must be funded from other than the Cooperative Projects Program.
- G. The Firm Fixed Price amount shall not exceed 50% of the total Cooperative Projects Program funds applied to the Project as set forth in Exhibit A, Exhibit "B" (Project Cost Breakdown), and Exhibit C, attached hereto and by reference made a part of this Contract.
- H. If, at the completion of the Project described in Exhibit A, the actual amount of Cooperative Projects Program Funds utilized in performance of the Project is less than the amount described in Exhibit B, the Firm Fixed Price amount reimbursed by DISTRICT to AGENCY shall not exceed 50% of the total Project cost.
8. COMPLIANCE WITH APPLICABLE LAWS - AGENCY shall comply with all federal, state, and local laws, ordinances, codes, and regulations and orders of public authorities in the performance of this Contract. In any contract that Agency issues to carry out the Project, Agency shall include a provision that requires the contractor and any of its subcontractors to comply with all federal, state, and local laws, ordinances, codes, and regulations and orders of public authorities in the performance of this Contract.
9. EMPLOYEES OF AGENCY
- A. With regard to Project work, AGENCY shall be responsible for the cost of compensation to its employees, including but not limited to vacation

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benefits, health benefits, sick leave, severance pay, and pay for legal holidays.

- B. With regard to Project work, AGENCY shall pay all federal and state payroll taxes for its employees and shall maintain worker's compensation and liability insurance for each of its employees.
 - C. With regard to Project work, AGENCY, its officers, employees, agents, or representatives shall in no manner be considered employees or agents of DISTRICT nor shall AGENCY, its officers, employees, agents, or representatives be entitled to or eligible to participate in any benefits, privileges, or plans, given or extended by DISTRICT to its employees.
- 10. OWNERSHIP - Title and full ownership rights to any products purchased or developed under this Contract shall at all times remain with AGENCY.
 - 11. NON-DISCRIMINATION - In the performance of this Contract, AGENCY shall not discriminate in recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, color, national origin, ancestry, sex, age, or physical handicap and shall comply with the provisions of the California Fair Employment & Housing Act (Government Code Section 12900, et seq.), the Federal Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), and all administrative rules and regulations issued pursuant to said Acts and Order. AGENCY shall likewise require each sub-agency to comply with this paragraph. In any contract that Agency issues to carry out the Project, Agency shall include a provision that requires the contractor and any of its subcontractors to comply with the above-mentioned federal and state laws, regulations, and orders.
 - 12. ASSIGNMENT - The rights granted hereby may not be assigned, sold, licensed, or otherwise transferred by either party without the written consent of the other, and any attempt by either party to do so shall be void upon inception.
 - 13. NON-EFFECT OF WAIVER - AGENCY'S or DISTRICT's failure to insist upon the performance of any or all of the terms, covenants, or conditions of this Contract, or failure to exercise any rights or remedies hereunder, shall not be construed as a waiver or relinquishment of the future performance of any such terms, covenants, or conditions or of the future exercise of such rights or remedies.
 - 14. ATTORNEY'S FEES - In the event any legal proceeding or action (including arbitration) is filed in connection with the enforcement or interpretation of this Contract, each party shall bear its own attorney's fees and costs.
 - 15. FORCE MAJEURE - Neither DISTRICT nor AGENCY shall be liable or deemed to be in default for any delay or failure in performance under this Contract or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, war, strikes, labor disputes, shortages of suitable parts, materials, labor, or transportation, or any similar cause beyond the reasonable control of DISTRICT or AGENCY.

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16. SEVERABILITY - In the event that any one or more of the provisions contained in this Contract shall for any reason be held to be unenforceable in any respect by a court of competent jurisdiction, such holding shall not affect any other provisions of this Contract, and this Contract shall then be construed as if such unenforceable provisions are not a part hereof.
17. HEADINGS - Headings on the paragraphs of this Contract are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Contract.
18. DUPLICATE EXECUTION - This Contract is executed in duplicate. Each signed duplicate shall have the force and effect of an original.
19. GOVERNING LAW - This Contract shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any dispute shall be Orange County, California.
20. PRE-CONTRACT COSTS - Any costs incurred by AGENCY prior to DISTRICT receipt of a fully executed Contract shall be incurred solely at the risk of AGENCY. In the event that a formal contract is not executed, DISTRICT shall not be liable for any amounts expended in anticipation of a formal contract. Notwithstanding the foregoing, pre-contract cost expenditures authorized by this Contract may, in the District's sole discretion, be reimbursed in accordance with the cost schedule and payment provision of this Contract.
21. NOTICES - All notices or other communications required or permitted hereunder shall be in writing, and shall be personally delivered or sent by registered or certified mail, postage prepaid, return receipt requested, delivered or sent by electronic transmission, and shall be deemed received upon the earlier of (i) the date of delivery to the address of the person to receive such notice if delivered personally or by messenger or overnight courier; (ii) three (3) business days after the date of posting by the United States Post Office if by mail; or (iii) when sent if given by electronic transmission. Any notice, request, demand, direction, or other communication sent by electronic transmission must be confirmed within forty-eight (48) hours by letter mailed or delivered. Notices or other communications shall be addressed as follows:

IF TO DISTRICT: Orange County Sanitation District
 P.O. Box 8127
 Fountain Valley, CA 92728-8127
 Attn: Board Secretary

IF TO AGENCY: City of Huntington Beach
 2000 Main Street
 Huntington Beach, CA 92648
 Attn: Todd Broussard

Any Party may, by written notice to the others, designate a different address, which shall be substituted for that specified above.

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22. ENTIRE CONTRACT - This Contract represents the entire agreement between the parties hereto with respect to the Cooperative Projects Program Contract between AGENCY and DISTRICT, and there are no understandings, representations, or warranties of any kind except as expressly set forth herein. No waiver, alteration, or modification of any of the provisions herein shall be binding on any party unless in writing and signed by the party against whom enforcement of such waiver, alteration, or modification is sought.
23. RECITALS - The Recitals above are hereby incorporated in this paragraph as though fully set forth herein and each party to this Contract acknowledges and agrees that such Party is bound, for purposes of the Contract, by the same as though set forth in full in this section.

IN WITNESS WHEREOF, the parties of this Contract have caused this Contract to be duly executed on their behalf by their authorized representatives on the date hereinabove.

ORANGE COUNTY SANITATION DISTRICT

By _____
Chair, Board of Directors

By _____
Secretary, Board of Directors

APPROVED AS TO FORM:
THOMAS L. WOODRUFF
DISTRICT COUNSEL

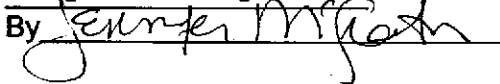
By 

CITY OF HUNTINGTON BEACH


By _____
Mayor

By _____
City Clerk

APPROVED AS TO FORM:
JENNIFER MCGRATH
City Attorney

By 


Director of Public Works


City Administrator

JDH:AT:sa
EDMS 003787130

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Exhibit A

Project Description/Statement of Work

E-4.13

B.III. PROJECT DESCRIPTION/STATEMENT OF WORK

A. Please review the Qualifying Project Categories described in Section A, Subsection A.IV, and check the Category box that corresponds to your proposed project. Please return this page as part of your Cooperative Projects Grants Program Application:

- ☐ Water Conservation Project: Category _____
- ☐ I/I Reduction Project: Category _____
- ☒ Administrative Project: Category Number 4
- ☐ Other Project: Please Specify _____

B. Please answer the following questions by checking the appropriate box and providing explanatory information as requested:

YES NO

Is the proposed project an expansion of an existing project? ☐ ☒

Is the proposed project a repair/replacement of an existing facility (sewer line segment, manhole structure, etc.)? ☐ ☒

C. If you checked the "yes" box for any of the above questions, please provide a brief explanation of the current project you wish to continue.

If the proposed project is an expansion of an existing project or a repair/replacement of an existing project, please provide a brief explanation of the existing project and the proposed expansion. Please attach extra sheet(s) if necessary.

If you checked the "Yes" box, please explain:

D. Please attached a detailed description of your proposed project, including the following elements:

1. Project goals and objectives
2. Scope of Work, including all project tasks
3. Project end products and deliverables
4. Location maps of proposed work zones

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EXHIBIT A: PROJECT DESCRIPTION / STATEMENT OF WORK

Project Goals

This request is to conduct temporary flow monitoring at four (4) to seven (7) locations in an area generally bounded by Hamilton Avenue, Brookhurst Street, Banning Avenue and the Orange County Flood Control District's Talbert Channel, which is west of Bushard Street. The objective of the monitoring will be to determine the amount of I/I within the approximate 31,000 lineal feet of clay sewer mains and manholes. If the monitoring show evidence of I/I and the Cost/Benefit analysis meets the District's payback criteria the City will request additional funds to rehabilitate its sewers within this area.

The approximately 40-year-old sewer pipes, which in most cases have been installed below groundwater levels, are upstream of the District's 78-inch "I-2" and 108-inch "I-2-4" trunk sewers. The City's ultimate goal will be to utilize a Green Book approved slip lining process to eliminate the infiltration in its sewers.

The City's benefits would be:

1. To have a better understanding of its sewer system within the boundaries of this application.
2. Ultimately rehabilitate its sewers within the boundaries of this application.

The DISTRICT'S benefits would be:

1. Ultimately reduce the amount of groundwater treated at the DISTRICT'S treatment plant.

Objectives

Install four to seven temporary flow monitors to capture the I/I within the area before, during and after rain events. The monitors will be installed as soon as possible after the City and DISTRICT have entered into an agreement. However, due to the instability of precipitation, and the timeframe of entering the agreement it is anticipated that most of the data will be collected between December 2005 and April 2006, to coincide with the official Orange County rainy season. However, once significant data can be derived the City will submit the data to the District for their cost-effective analysis. If the analysis proves advantageous to both agencies the City will request additional grant funds and approval from the DISTRICT's Cooperative Projects Grant Committee.

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Scope of Work, Including all Project Tasks

City scope of work will be at a minimum the following:

- Investigate the proposed flow monitoring sites
- Conduct flow monitoring
- Prepare report to inform DISTRICT of the results

Project End Products and Deliverables

1. Flow Monitoring Report.

In addition the City of Huntington Beach agrees to or has completed the following:

- Water Conservation BMP – Adopted
- Sewer Master Plan – The City agrees to maintain its master plan, which was last updated in 2002.
- Flow monitoring – The City agrees to conduct flow monitoring prior to any construction as it relates to the District's CPP.

E-4.16

Exhibit B
Project Cost Breakdown

E-417

EXHIBIT B: PROJECT COST BREAKDOWN
(Please include this page as part of your
Cooperative Projects Grants Program Application)

A. Please provide the following information regarding project funding:

- What is your funding contribution? \$ 25,000
- When will your funding become available? At the time of executing the agreement

B. Please provide the following Project Cost by Category Information:

<u>PROJECT COST BY FUNDING CATEGORY</u>	<u>AMOUNT</u>
1. AGENCY funds available in FY2004-05	\$ <u>25,000</u>
2. Cooperative funds requested	\$ <u>25,000</u>
3. Additional Project Co-Funding	\$ <u>0</u>
4. Total Project Cost	\$ <u>50,000</u>

	<u>YES</u>	<u>NO</u>
Is the Cooperative Projects Grants Program Funds request less than or equal to 50% of the Total Proposed Project Cost?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the Cooperative Projects Grants Program Funds request less than or equal to 25% of the Total Proposed Project Cost?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the applicant have sufficient funds available to cover the total project cost, considering that the Cooperative Projects Grants Program Funds are available on a reimbursement-basis only?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the applicant have sufficient funds available to cover ANY costs increases, considering that increases in the Cooperative Projects Grants Program Fund will not be available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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C. Please list all funding sources other than the Cooperative Projects Grants Program:

<u>NON-COOPERATIVE PROGRAM FUNDING SOURCE</u>	<u>AMOUNT</u>
1. City sewer funds	\$ 25,000
2. _____	\$ _____
3. _____	\$ _____
4. _____	\$ _____
TOTAL OTHER PROJECT CO-FUNDING:	\$ 25,000

D. As applicable, please list all project costs by cost element. Please provide as much detail as practicable when detailing project costs. For example, please provide labor categories, hourly rates, number of hours, etc. when defining labor costs. *Please return this page as part of your Project Application:*

<u>CAPITAL EQUIPMENT COSTS (PIPE, MANHOLE FRAME AND COVER, ETC.)</u>	<u>AMOUNT</u>
1. _____	\$ _____
2. _____	\$ _____
3. _____	\$ _____
4. _____	\$ _____
5. _____	\$ _____
TOTAL CAPITAL EQUIPMENT COSTS:	\$ 0

<u>DIRECT LABOR COSTS (including overhead and benefits):</u>	<u>AMOUNT</u>
1. _____ Labor hours x \$/hour =	\$ _____
2. _____ Labor hours x \$/hour =	\$ _____
3. _____ Labor hours x \$/hour =	\$ _____
4. _____ Labor hours x \$/hour =	\$ _____
TOTAL DIRECT LABOR COSTS:	\$ 0

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**OTHER DIRECT LABOR COSTS, INCLUDING SUB-
AGENCIES:**

AMOUNT

1.	_____	\$	_____
2.	_____	\$	_____
3.	_____	\$	_____
4.	_____	\$	_____
TOTAL OTHER DIRECT LABOR COSTS:		\$	_____
ADMINISTRATIVE COSTS: (Specify methodology for costs, i.e. % of project costs, actual cost breakdown etc.)		\$	_____
TOTAL PROJECT COST:		\$	<u>50,000</u>

Please note that the Total Project Cost reflected in subsections B and D, above should be consistent.

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Exhibit C
Project Milestone Schedule

E-4.21

EXHIBIT C: PROJECT MILESTONE SCHEDULE

MILESTONE	COMPLETION DATE
Task 1. – DISTRICT Award Grant	March 2005
Task 2. – AGENCY Acceptance Grant	May 2005
Task 3 – *Flow Monitoring	June 2005 – April 2006
Task 4. – DISTRICT Approves Analysis	June 2006
Task 5. – City Applies for Additional Funds	July 2006

PROJECT TASK		2005												2006											
		M a r	A p r	M a y	J u n	J u l	A u g	S e p	O c t	N o v	D e c	J a n	F e b	M a r	A p r	M a y	J u n	J u l	A u g	S e p	O c t				
Task 1-	DISTRICT Award Grant	+																							
Task 2-	City Accepts Grant			+																					
Task 3-	*Flow Monitoring																								
Task 4-	District Approve Cost/Benefit Analysis																	+							
Task 5-	City Applies for Additional Funds																		+						

*Due to the instability of precipitation, it is anticipated that most of the data will be collected between December 2005 and April 2006, to coincide with the official Orange County rainy season. However, if the City obtains significant data sooner, the City will submit the data to the District for their cost-effective analysis and the City's schedule can be modified to reflect the District decision.

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Exhibit D

Water Conservation - Best Management Practices

E-4.23

WATER SURVEY PROGRAMS FOR SINGLE-FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL CUSTOMERS

Implementation

Implementation shall consist of at least the following actions:

- a) Develop and implement a strategy targeting and marketing water use surveys to single-family residential and multi-family residential customers.
- b) Directly contact via letter or telephone not less than 20% of single-family residential customers and 20% of multi-family residential customers each reporting period.
- c) Surveys shall include indoor and outdoor components, and at minimum shall have the following elements:

Indoor

- i) Check for leaks, including toilets, faucets, and meter check
- ii) Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, as necessary
- iii) Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary

Outdoor

- iv) Check irrigation system and timers
- v) Review or develop customer irrigation schedule

Recommended but not required

- vi) Measure currently landscaped area
 - vii) Measure total irrigable area
- d) Provide customer with evaluation results and water saving recommendations; leave information packet with customer.
 - e) Track surveys offered, surveys completed, survey results, and survey costs.

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BMP 1

WATER SURVEY PROGRAMS FOR SINGLE-FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL CUSTOMERS

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the year following the year the agency signed or became subject to the MOU.
- c) Agencies shall develop and implement a strategy targeting and marketing water use surveys to single-family residential and multi-family residential customers by the end of the first reporting period following the date implementation was to commence.
- d) The coverage requirement for this BMP, as specified in Section C of this Exhibit, shall be realized within 10 years of the date implementation was to commence.

Coverage Requirements

- a) Not less than 15% of single-family residential accounts to receive water use surveys within 10 years of the date implementation was to commence.
- b) Not less than 15% of multi-family residential units to receive water use surveys within 10 years of the date implementation was to commence.

Requirements for Documenting BMP Implementation

- a) Number of single-family residential accounts in service area.
- b) Number of multi-family residential accounts in service area.
- c) Number of single-family residential surveys offered during reporting period.
- d) Number of single-family residential surveys completed during reporting period.
- e) Number of multi-family residential surveys offered during reporting period.
- f) Number of multi-family residential surveys completed during reporting period.

E-4.25

BMP 1

WATER SURVEY PROGRAMS FOR SINGLE-FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL CUSTOMERS

Criteria to Determine BMP Implementation Status

- a) Agency has developed and implemented a strategy targeting and marketing water use surveys to single-family residential and multi-family residential customers by the end of the first reporting period following the date implementation was to commence.
- b) Agency has directly contacted not less than 20% of single-family residential accounts and 20% of multi-family residential units during period being reported.
- c) Agency is on schedule to complete surveys for 15% of single-family residential accounts and 15% of multi-family units within 10 years of the date implementation was to commence. Agencies will receive credit against the coverage requirement for previously completed residential water use surveys according to the following schedule:*

	<u>% Credit</u>
Before 1990	0.0%
1990	12.5%
1991	25.0%
1992	37.5%
1993	50.0%
1994	62.5%
1995	75.0%
1996	87.5%
1997	100.0%

- d) Agencies will be considered on track if the percent of single-family accounts and the percent of multi-family accounts receiving water use surveys equals or exceeds the following: 1.5% by end of first reporting period following date implementation to commence; 3.6% by end of second reporting period; 6.3% by end of third reporting period; 9.6% by end of fourth reporting period; and 13.5% by end of fifth reporting period.

* In its study "What is the Reliable Yield from Residential Home Water Survey Programs: The Experience of LADWP" (AWWA Conf. Proceedings, 1995), A & N Technical Services, Inc., found that the average level of savings from home water surveys decreased over time, reaching about 50% of initial yield by the fourth year following the survey, on average. The above decay schedule used for crediting past surveys utilizes these findings to recognize and account for the limited persistence of water savings over time from home water use

E - 4.26

BMP 1

WATER SURVEY PROGRAMS FOR SINGLE-FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL CUSTOMERS

Water Savings Assumptions

	Pre-1980	Post-1980
	<u>Construction</u>	<u>Construction</u>
Low-flow showerhead retrofit	7.2 gcd	2.9 gcd
Toilet retrofit (five year life)	1.3 gcd	0.0 gcd
Leak repair	0.5 gcd	0.5 gcd
Landscape survey (outdoor use reduction)	10%	10%

surveys.

E-4.27

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RESIDENTIAL PLUMBING RETROFIT

Implementation

Implementation shall consist of at least the following actions:

- a) Identify single-family and multi-family residences constructed prior to 1992. Develop a targeting and marketing strategy to distribute or directly install high-quality, low-flow showerheads (rated 2.5 gpm or less), toilet displacement devices (as needed), toilet flappers (as needed) and faucet aerators (rated 2.2 gpm or less) as practical to residences requiring them.
- b) Maintain distribution and/or direct installation programs so that devices are distributed to not less than 10% of single-family connections and multi-family units, each reporting period, or require through enforceable ordinance the replacement of high-flow showerheads and other water using fixtures with their low-flow counterparts, until it can be demonstrated in accordance with Section E of this Exhibit that 75% of single-family residences and 75% of multi-family units are fitted with high-quality, low-flow showerheads.
- c) Track the type and number of retrofits completed, devices distributed, and program costs.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the year following the year the agency signed or became subject to the MOU.
- c) Agencies shall develop and implement a strategy targeting the distribution and/or installation of high-quality, low-flow plumbing devices to single-family residential and multi-family residential customers by the end of the first reporting period following the date implementation was to commence.
- d) An agency may elect to discontinue its device distribution programs without filing a formal budget or cost-effectiveness exemption when it can demonstrate that 75% of its single-family residences and 75% of its multi-family units constructed prior to 1992 are fitted with high-quality, low-flow showerheads.

E-4.28

BMP 2

RESIDENTIAL PLUMBING RETROFIT

Coverage Requirements

- a) Plumbing device distribution and installation programs to be maintained at a level sufficient to distribute high-quality, low-flow showerheads to not less than 10% of single-family residences and 10% of multi-family units constructed prior to 1992 each reporting period; or the enactment of an enforceable ordinance requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts.
- b) Plumbing device distribution and installation programs to be operated until it can be demonstrated in accordance with Section E of this Exhibit that 75% of single-family residences and 75% of multi-family units are fitted with high-quality, low-flow showerheads.

Requirements for Documenting BMP Implementation

- a) The target population of pre-1992 single-family residences and multi-family units to be provided showerheads and other water saving devices.
- b) The number of showerhead retrofit kits distributed during previous reporting period.
- c) The number of device retrofits completed during the previous reporting period.
- d) The estimated percentage of pre-1992 single-family residences and multi-family units in service area fitted with low-flow showerheads.

Criteria to Determine BMP Implementation Status

- a) Agency has developed and implemented a strategy targeting and marketing water use surveys to single-family residential and multi-family residential customers by the end of the first reporting period following the date implementation was to commence.
- b) Agency has tracked the type and number of retrofits completed, devices distributed, and program costs.

E - 4.29

BMP 2

RESIDENTIAL PLUMBING RETROFIT

c) Agency EITHER

- i) has distributed or directly installed high-quality, low-flow showerheads and other low-flow plumbing devices to not less than 10% of single-family residences and 10% of multi-family units constructed prior to 1992 during the reporting period; and/or has enacted an ordinance requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts.

OR

- ii) can demonstrate through customer surveys with 95% statistical confidence and a $\pm 10\%$ error that 75% of single-family residences and 75% of multi-family units constructed prior to 1992 are fitted with low-flow showerheads.

Water Savings Assumptions

	Pre-1980 <u>Construction</u>	Post-1980 <u>Construction</u>
Low-flow showerhead retrofit	7.2 gcd	2.9 gcd
Toilet retrofit (five year life)	1.3 gcd	0.0 gcd

E - 4.30

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SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

Implementation

Implementation shall consist of at least the following actions:

- a) Annually complete a prescreening system audit to determine the need for a full-scale system audit. The prescreening system audit shall be calculated as follows:
 - i) Determine metered sales;
 - ii) Determine other system verifiable uses;
 - iii) Determine total supply into the system;
 - iv) Divide metered sales plus other verifiable uses by total supply into the system. If this quantity is less than 0.9, a full-scale system audit is indicated.
- b) When indicated, agencies shall complete water audits of their distribution systems using methodology consistent with that described in AWWA's "Water Audit and Leak Detection Guidebook."
- c) Agencies shall advise customers whenever it appears possible that leaks exist on the customer's side of the meter; perform distribution system leak detection when warranted and cost-effective; and repair leaks when found.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the year following the year the agency signed or became subject to the MOU.

Coverage Requirements

- a) Agency shall maintain an active distribution system auditing program.
- b) Agency shall repair identified leaks whenever cost-effective.

E-4.31

BMP 3
SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

Requirements for Documenting BMP Implementation

- a) Prescreening audit results and supporting documentation;
- b) Maintain in-house records of audit results or the completed AWWA Audit Worksheets for each completed audit period.

Criteria to Determine BMP Implementation Status

- a) Agency has annually completed a pre-screening distribution system audit.
- b) Agency has conducted a full system audit consistent with methods described by AWWA's "Manual of Water Supply Practices, Water Audits and Leak Detection" whenever indicated by a pre-screening audit.

Water Savings Assumptions

Unaccounted water losses assumed to be no more than 10% of total water into the water supplier's system.

E-4.32

BMP 4

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

Implementation

Implementation shall consist of at least the following actions:

- a) Requiring meters for all new connections and billing by volume of use
- b) Establishing a program for retrofitting existing unmetered connections and billing by volume of use.
- c) Identifying intra- and inter-agency disincentives or barriers to retrofitting mixed use commercial accounts with dedicated landscape meters, and conducting a feasibility study to assess the merits of a program to provide incentives to switch mixed use accounts to dedicated landscape meters.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1999.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the second year following the year the agency signed or became subject to the MOU.
- c) A plan to retrofit and bill by volume of use existing unmetered connections to be completed by end of the first reporting period following the date implementation was to commence.
- d) A feasibility study examining incentive programs to move landscape water uses on mixed-use meters to dedicated landscape meters to be completed by end of the first reporting period following the date implementation was to commence.

Coverage Requirements

100% of existing unmetered accounts to be metered and billed by volume of use within 10 years of date implementation was to commence.

E-4.33

BMP 4

METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

Requirements for Documenting BMP Implementation

- a) Confirmation that all new connections are metered and are being billed by volume of use.
- b) Number of unmetered accounts in the service area. For the purposes of evaluation, this shall be defined as the baseline meter retrofit target, and shall be used to calculate the agencies minimum annual retrofit requirement.
- c) Number of unmetered connections retrofitted during the reporting period.
- d) Number of CII accounts with mixed-use meters.
- e) Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period.

Criteria to Determine BMP Implementation Status

- a) Agency with existing unmetered connections has completed a meter retrofit plan by end of first reporting period following the date implementation was to commence.
- b) Agency has completed a feasibility study examining incentive programs to move landscape water uses on mixed-use meters to dedicated landscape meters by end of first reporting period following the date implementation was to commence.
- c) Agency with existing unmetered connections is on track to meter these connections within 10 years of the date implementation was to commence. An agency will be considered on track if the percent of unmetered accounts retrofitted with meters equals or exceeds the following: 10% by end of first reporting period following date implementation to commence; 24% by end of second reporting period; 42% by end of third reporting period; 64% by end of fourth reporting period; and 90% by end of fifth reporting period.

Water Savings Assumptions

Assume meter retrofits will result in a 20% reduction in demand by retrofitted accounts.

E-4.34

LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

Implementation

Implementation shall consist of at least the following actions:

Customer Support, Education and Assistance

- a) Agencies shall provide non-residential customers with support and incentives to improve their landscape water use efficiency. This support shall include, but not be limited to, the following:

Accounts with Dedicated Irrigation Meters

- a) Identify accounts with dedicated irrigation meters and assign ETo-based water use budgets equal to no more than 100% of reference evapotranspiration per square foot of landscape area in accordance with the schedule given in Section B of this Exhibit.
- b) Provide notices each billing cycle to accounts with water use budgets showing the relationship between the budget and actual consumption in accordance with the schedule given in Section B of this Exhibit; agencies may choose not to notify customers whose use is less than their water use budget.

Commercial/Industrial/Institutional Accounts with Mixed-Use Meters or Not Metered

- a) Develop and implement a strategy targeting and marketing large landscape water use surveys to commercial/industrial/institutional (CII) accounts with mixed-use meters. Each reporting period, directly contact via letter or telephone not less than 20% of CII accounts with mixed-use meters and offer water use surveys. (Note: CII surveys that include both indoor and outdoor components can be credited against coverage requirements for both BMP 5 and BMP 9.)
- b) Unmetered service areas will actively market landscape surveys to existing accounts with large landscapes, or accounts with landscapes which have been determined by the purveyor not to be water efficient.
- c) Offer the following measures when cost-effective:
 - i) Landscape water use analysis/surveys
 - ii) Voluntary water use budgets
 - iii) Installation of dedicated landscape meters

E-4.35

LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

- iv) Training (multi-lingual where appropriate) in landscape maintenance, irrigation system maintenance, and irrigation system design.
- v) Financial incentives to improve irrigation system efficiency such as loans, rebates, and grants for the purchase and/or installation of water efficient irrigation systems.
- vi) Follow-up water use analyses/surveys consisting of a letter, phone call, or site visit where appropriate
- d) Survey elements will include: measurement of landscape area; measurement of total irrigable area; irrigation system check, and distribution uniformity analysis; review or develop irrigation schedules, as appropriate; provision of a customer survey report and information packet.
- e) Track survey offers, acceptance, findings, devices installed, savings potential, and survey cost.

New or Change of Service Accounts

Provide information on climate-appropriate landscape design, efficient irrigation equipment/management to new customers and change-of-service customer accounts.

Recommended

- a) Install climate appropriate water efficient landscaping at water agency facilities, and dual metering where appropriate.
- b) Provide customer notices prior to the start of the irrigation season alerting them to check their irrigation systems and make repairs as necessary. Provide customer notices at the end of the irrigation season advising them to adjust their irrigation system timers and irrigation schedules.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1999.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the second year following the year the agency signed or became subject to the MOU.

E-4.36

BMP 5

LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

- c) Develop ETo-based water use budgets for all accounts with dedicated irrigation meters by the end of the second reporting period from the date implementation was to commence.
- d) Develop and implement a plan to target and market landscape water use surveys to CII accounts with mixed-use meters by the end of the first reporting period from the date implementation was to commence.
- e) Develop and implement a customer incentive program by the end of the first reporting period from the date implementation was to commence.

Coverage Requirements

- a) ETo-based water use budgets developed for 90% of CII accounts with dedicated irrigation meters by the end of the second reporting period from the date implementation was to commence.
- b) Not less than 20% of CII accounts with mixed-use meters contacted and offered landscape water use surveys each reporting period.
- c) Irrigation water use surveys completed for not less than 15% of CII accounts with mixed-use meters within 10 years of the date implementation was to commence.
(Note: CII surveys that include both indoor and outdoor components can be credited against coverage requirements for both BMP 5 and BMP 9.)

Requirements for Documenting BMP Implementation

Dedicated Landscape Irrigation Accounts

Agencies shall preserve water use records and budgets for customers with dedicated landscape irrigation accounts for a period of not less than two reporting periods. This information may be used by the CUWCC to verify the agency's reporting on this BMP.

- a) Number of dedicated irrigation meter accounts.
- b) Number of dedicated irrigation meter accounts with water budgets.
- c) Aggregate water use for dedicated landscape accounts with budgets.
- d) Aggregate budgeted water use for dedicated landscape accounts with budgets.

E-437

LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

Mixed Use Accounts

- a) Number of mixed use accounts
- b) Number, type, and dollar value of incentives, rebates, and no, or low interest loans offered to, and received by, customers.
- c) Number of surveys offered
- d) Number of surveys accepted
- e) Estimated annual water savings by customers receiving surveys and implementing recommendations.

Criteria to Determine BMP Implementation Status

- a) Agency has developed water use budgets for 90% of accounts with dedicated irrigation meters by end of second reporting period from date implementation was to commence.
- b) Agency has implemented irrigation water use survey program for CII accounts with mixed-use meters, and directly contacts and offers surveys to not less than 20% of accounts each reporting period. (A program to retrofit mixed-use accounts with dedicated landscape meters and assigning water use budgets, or a program giving mixed-use accounts ETo-based budgets for irrigation uses satisfies this criterion.)
- c) Agency is on track to provide water use surveys to not less than 15% of CII accounts with mixed-use meters within 10 years of the date implementation was to commence. Agency may credit 100% of the number of landscape water use surveys for CII accounts with mixed-use meters completed prior to July 1, 1996, that have received a follow-up inspection against the coverage requirement; and 50% of surveys that have not received follow-up inspections. Agency may credit 100% of the number of landscape water use surveys completed for CII accounts with mixed-use meters after July 1, 1996 against the coverage requirement. (A program to retrofit mixed-use accounts with dedicated landscape accounts, or a program giving mixed-use accounts ETo-based budgets for irrigation uses satisfy this criterion.)
- d) An agency will be considered on track if the percent of CII accounts with mixed-use meters receiving a landscape water use survey equals or exceeds the following: 1.5% by end of first reporting period following date implementation to commence; 3.6% by end of second reporting period; 6.3% by end of third reporting period; 9.6% by end of fourth reporting period; and 13.5% by end of fifth reporting period. (A program to retrofit mixed-use accounts with dedicated landscape accounts, or a program giving mixed-use accounts ETo-based budgets for irrigation uses satisfy this criterion.)

E-4.38

BMP 5

LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

- e) Agency has implemented and is maintaining customer incentive program(s) for irrigation equipment retrofits.

Water Savings Assumptions

Assume landscape surveys will result in a 15% reduction in demand for landscape uses by surveyed accounts.

E-4.39

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BMP 6

HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS

Implementation

Implementation shall consist of at least the following actions:

CUWCC Actions and Responsibilities

- a) Within 6 months from the adoption of this BMP, the Council will develop interim estimates of reliable water savings attributable to the use of high-efficiency washing machines based on the results of the THELMA Study and other available data. Water purveyors may defer implementing this BMP until the Council has adopted these interim estimates.
- b) Within two years from the adoption of this BMP, the Council will complete studies quantifying reliable savings attributable to the use of high-efficiency washing machines.
- c) At the end of two years following the adoption of this BMP, the Council will appoint a committee to evaluate the effectiveness of triggering high-efficiency washing machine financial incentive programs operated by MOU signatories with programs operated by energy service providers. This committee will consist of 2 group 1 representatives, 2 group 2 representatives, and the CUWCC Administrator or Executive Director or his/her designee. This BMP will be modified by the appointed committee to require agencies to implement financial incentive programs for high-efficiency washing machines whenever cost-effective and regardless of the absence of a program operated by an energy service provider if the committee concludes from available evidence the following:
 - the CUWCC has verified that significant water savings are available from high-efficiency washing machines;
 - there is widespread product availability; and
 - financial incentive programs offered by energy service providers in California have either not materialized, been largely discontinued or significantly scaled back.

Water Purveyor Responsibilities

- a) In conjunction with the CUWCC, support local, state, and federal legislation to improve efficiency standards for washing machines.

E-4.40

HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS

- b) If an energy service provider or waste water utility within the service territory is offering a financial incentive for the purchase of high-efficiency washing machines, then the water agency shall also offer a cost-effective financial incentive based on the marginal benefits of the water savings. Incentive levels shall be calculated by using methods found in A Guide to Customer Incentives for Water Conservation prepared by Barakat and Chamberlain for the CUWA, CUWCC, and US EPA. February 1994. A water purveyor is not required to implement a financial incentive program if the maximum cost-effective rebate is less than \$50.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1999.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the second year following the year the agency signed or became subject to the MOU.

Coverage Requirements

Cost-effective customer incentive for the purchase of high-efficiency washing machine offered if incentives are being offered by local energy service providers or waste water utility.

Requirements for Documenting BMP Implementation

- a) Customer incentives to purchase high-efficiency washing machines being offered by local energy service providers, if any.
- b) Customer incentives to purchase high-efficiency washing machines being offered by agency, if any.

E-4.41

BMP 6

HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS

Criteria to Determine BMP Implementation Status

- a) Agency has determined if energy service providers or waste water utilities operating within service territory offer financial incentives for the purchase of high-efficiency washing machines.
- b) If energy service provider or waste water utility operating within agency's service territory is offering financial incentives, agency has calculated cost-effective customer incentive using methods found in A Guide to Customer Incentives for Water Conservation prepared by Barakat and Chamberlain for the CUWA, CUWCC, and US EPA, February 1994, and is offering this incentive to customers in service territory.

Water Savings Assumptions

Not quantified at this time

E-4.42

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BMP 7

PUBLIC INFORMATION PROGRAMS

Implementation

Implementation shall consist of at least the following actions:

- a) Implement a public information program to promote water conservation and water conservation related benefits.
- b) Program should include, but is not limited to, providing speakers to employees, community groups and the media; using paid and public service advertising; using bill inserts; providing information on customers' bills showing use in gallons per day for the last billing period compared to the same period the year before; providing public information to promote water conservation practices; and coordinating with other government agencies, industry groups, public interest groups, and the media.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.

Coverage Requirements

Agencies shall maintain an active public information program to promote and educate customers about water conservation.

Requirements for Documenting BMP Implementation

- a) Number of public speaking events relating to conservation during reporting period
- b) Number of media events relating to conservation during reporting period.
- c) Number of paid or public service announcements relating to conservation produced or sponsored during reporting period.
- d) Types of information relating to conservation provided to customers.
- e) Annual budget for public information programs directly related to conservation.

E-4.43

BMP 7
PUBLIC INFORMATION PROGRAMS

Criteria to Determine BMP Implementation Status

Agency has implemented and is maintaining a public information program consistent with BMP 7's definition.

Water Savings Assumptions

Not quantified.

E-4.44

BMP 8
SCHOOL EDUCATION PROGRAMS

Implementation

Implementation shall consist of at least the following actions:

- a) Implement a school education program to promote water conservation and water conservation related benefits.
- b) Programs shall include working with school districts and private schools in the water suppliers' service area to provide instructional assistance, educational materials, and class-room presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Education materials shall meet the state education framework requirements, and grade appropriate materials shall be distributed to grade levels K-3, 4-6, 7-8, and high school.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.

Coverage Requirements

Agencies shall maintain an active school education program to educate students in agencies' service areas about water conservation and efficient water uses.

Requirements for Documenting BMP Implementation

- a) Number of school presentations made during reporting period.
- b) Number and type of curriculum materials developed and/or provided by water supplier, including confirmation that curriculum materials meet state education framework requirements and are grade-level appropriate.

E-4.45

BMP 8

SCHOOL EDUCATION PROGRAMS

- c) Number of students reached.
- d) Number of in-service presentations or teacher's workshops conducted during reporting period.
- e) Annual budget for school education programs related to conservation.

Criteria to Determine BMP Implementation Status

Agency has implemented and is maintaining a school education program consistent with BMP 8's definition.

Water Savings Assumptions

Not quantified.

E-4.46

BMP 9

CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ACCOUNTS

Implementation

Implementation shall consist of at least the following actions:

- a) Identify and rank commercial, industrial, and institutional customers according to use. For purposes of this BMP, commercial, industrial, and institutional customers are defined as follows:

Commercial Customers: any water use that provides or distributes a product or service, such as hotels, restaurants, office buildings, commercial businesses or other places of commerce. These do not include multi-family residences, agricultural users, or customers that fall within the industrial or institutional classifications.

Institutional Customers: any water-using establishment dedicated to public service. This includes schools, courts, churches, hospitals, and government facilities. All facilities serving these functions are to be considered institutions regardless of ownership.

Industrial Customers: any water users that are primarily manufacturers or processors of materials as defined by the Standard Industrial Classifications (SIC) Code numbers 2000 through 3999.

- b) Within one year of the adoption of this BMP, the CUWCC shall establish long-term implementation targets for the replacement of high-water-using toilets with ULFTs in the CII sector. Implementation targets will be based on the findings of the CUWCC CII ULFT Water Savings Study.

EITHER

- c) Implement a CII water-use survey and customer incentives program in accordance with the description below.

OR

- d) Achieve water use reductions in the CII equaling or exceeding the targets described below.

CII Water Use Survey and Customer Incentives Program

Develop a customer targeting and marketing strategy to provide water use surveys and customer incentives to commercial, industrial, and institutional accounts. Directly contact (via letter, telephone, or personal visit) and offer water use surveys and customer incentives to at least 10% of commercial, industrial, and institutional accounts on a repeating basis. Water use surveys must include a site visit, an evaluation of all water-

E-4.97

BMP 9

CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ACCOUNTS

using apparatus and processes, and a customer report identifying recommended efficiency measures, their expected payback, and available agency incentives. Within one year of a completed survey, follow-up via phone or site visit with customer regarding facility water use and water saving improvements. Track customer contacts, customers receiving surveys, follow-ups, and measures implemented. The method for crediting water use surveys completed prior to the revision of this BMP is described in Section E of this Exhibit.

CII Conservation Performance Targets

Implement programs to reduce water use by commercial, industrial, and institutional accounts by an amount equal to 10% of baseline use of commercial, industrial, and institutional accounts in the agency's service area over a ten year period. The method for calculating water savings is described in Section E of this exhibit. Baseline use is defined as the use by commercial, industrial, and institutional accounts in 1989. Water purveyors may justify to the CUWCC the use of an alternative baseline year.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1999.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the second year following the year the agency signed or became subject to the MOU.
- c) The coverage requirement for this BMP, as specified in Section C of this Exhibit, shall be realized within 10 years of the date implementation was to commence.

Coverage Requirements

CII Water Use Survey and Customer Incentives Program

10% of commercial, industrial, and institutional customers to accept a water use survey within 10 years of the date implementation is to commence.

E-4.48

BMP 9

CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ACCOUNTS

CII Conservation Performance Targets

Reduce water use by commercial, industrial, and institutional customers by an amount equal to 10% of the use of baseline commercial, industrial, and institutional water use within 10 years of the date implementation is to commence.

Requirements for Documenting BMP Implementation

The number of customers and amount of water use within the commercial, industrial, and institutional customer classes.

CII Water Use Survey and Customer Incentives Program

- a) The number of commercial, industrial, and institutional customers offered water use surveys during the reporting period.
- b) The number of new water use surveys completed during the reporting period.
- c) The number of follow-ups completed during the reporting period.
- d) The type and number of water saving recommendations implemented.
- e) Incentive program budget and customer outlays.

CII Conservation Performance Targets

The estimated reduction in water use by commercial, industrial, and institutional accounts due to agency programs, interventions, and actions. Agencies must document how savings were realized and the method and calculations for estimating savings.

Criteria to Determine BMP Implementation Status

Agency has identified and ranked by water use its commercial, industrial, and institutional accounts.

E-4.49

**CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL,
AND INSTITUTIONAL ACCOUNTS**

CII Water Use Survey and Customer Incentives Program

- a) Agency has developed and implemented a strategy targeting and marketing water use surveys to commercial, industrial, and institutional accounts by the end of the first reporting period following the date implementation is to commence.
- b) Agency is on schedule to complete surveys for 10% of commercial accounts, 10% of industrial accounts, and 10% of institutional accounts within 10 years of the date implementation is to commence. Agencies may credit 50% of the number of surveys completed prior to July 1, 1996 that have not received follow-up verification of implementation, and 100% of the number of surveys completed prior to July 1, 1996 that have received a follow-up survey. Agencies may credit 100% of the number of surveys completed after July 1, 1996 against the coverage requirement.
- c) Agencies will be considered on track if the percent of commercial, industrial, and institutional accounts receiving a water use survey equals or exceeds the following: 0.5% by end of first reporting period following date implementation is to commence; 2.4% by end of second reporting period; 4.2% by end of third reporting period; 6.4% by end of fourth reporting period; and 9.0% by end of fifth reporting period.

CII Conservation Performance Targets

- a) Agency is on schedule to reduce water use by commercial, industrial, and institutional accounts by an amount equal to 10% of baseline use (as defined in Section A of this Exhibit) for commercial, industrial, and institutional accounts within 10 years of the date implementation is to commence.
- b) Agencies will be considered on track if estimated savings as a percent of baseline water use equals or exceeds the following: 0.5% by end of first reporting period following date implementation is to commence; 2.4% by end of second reporting period; 4.2% by end of third reporting period; 6.4% by end of fourth reporting period; and 9.0% by end of fifth reporting period.
- c) Credited water savings must be realized through agency actions performed to increase water use efficiency within the CII sector. Agencies may credit 100% of estimated annual savings of interventions since 1991 that have been site verified, and 25% of estimated annual savings of interventions that have not been site verified.
- d) Agencies may claim the estimated savings for regulations, ordinances, or laws intended to increase water use efficiency by the CII sector, subject to the review and approval of the savings estimates by the CUWCC. To avoid double counting, agencies justifying savings on the basis of rate structure changes may not claim savings from any other actions undertaken by CII customers, third parties, or the agency.

E - 4.50

BMP 9

CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ACCOUNTS

Combined Targets

Agencies may choose different tracks for different CII customer classes, and will be considered in compliance with this BMP if they are on track to meet each applicable coverage requirement for each class. In addition, agencies may implement both tracks for a given CII customer class, and will be considered in compliance with this BMP if the percent of surveys completed and the percent of water savings realized, when added together, equals or exceeds the applicable compliance requirement. For example, at the end of the second reporting cycle an agency would be considered on track to meet the coverage requirement if the percent of surveys completed and the percent of water savings achieved, when added together, equaled or exceeded 2.4%. Agencies may combine tracks only if they make a convincing demonstration that savings attributable to counted surveys are not also included in their estimate of water savings for meeting the water savings performance track.

Water Savings Assumptions

Commercial water reduction results from Best Management Practices such as Interior and Landscape Water Surveys, Plumbing Codes, and Other Factors but exclude Ultra Low Flush Toilet Replacement. (Includes savings accounted for in other BMPs) Estimated reduction in gallons per employee per day in year 2000 use occurring over the period 1980-2000: 12%.

Industrial water reduction results from Best Management Practices, Waste Discharge Fee, New Technology, Water Surveys, Plumbing Codes and Other Factors, but exclude Ultra Low Flush Toilet Replacement. (Includes savings accounted for in other BMPs) Estimated reduction in gallons per employee per day in year 2000 use occurring over the period 1980-2000: 15%.

E-4.51

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WHOLESALE AGENCY ASSISTANCE PROGRAMS

Implementation

Implementation shall consist of at least the following actions:

Financial Support

- a) Wholesale water suppliers will provide financial incentives, or equivalent resources, as appropriate and beneficial, to their retail water agency customers to advance water conservation efforts and effectiveness.
- b) All BMPs implemented by retail water agency customers which can be shown to be cost-effective in terms of avoided cost of water from the wholesaler's perspective, using CUWCC cost-effectiveness analysis procedures, will be supported.

Technical Support

Wholesale water agencies shall provide conservation-related technical support and information to all retail agencies for whom they serve as a wholesale supplier. At a minimum this requires:

- c) Conducting or funding workshops addressing the following topics:
 - i) CUWCC procedures for calculating program savings, costs and cost-effectiveness.
 - ii) Retail agencies' BMP implementation reporting requirements.
 - iii) The technical, programmatic, strategic or other pertinent issues and developments associated with water conservation activities in each of the following areas:
ULFT replacement; residential retrofits; commercial, industrial and institutional surveys; residential and large turf irrigation; and conservation-related rates and pricing.
- d) Having the necessary staff or equivalent resources available to respond to retail agencies' technical and programmatic questions involving CUWCC's BMPs and their associated reporting requirements.

E-4.52

BMP 10

WHOLESALE AGENCY ASSISTANCE PROGRAMS

- c) The total monetary amount of financial incentives and equivalent resources provided to retail members to assist, or to otherwise support, the implementation of BMPs.
- d) The total amount of verified water savings achieved by each wholesaler-assisted BMP.

Requirements for Documenting BMP Implementation

- a) The total monetary amount of financial incentives and equivalent resources provided to retail members to assist, or to otherwise support, the implementation of BMPs, subtotaled by BMP.
- b) The total amount of verified water savings achieved by each wholesaler-assisted BMP.

Criteria to Determine BMP Implementation Status

- a) Timely and complete reporting of all information as provided for above under "Reporting and Record Keeping Requirements."
- b) Offering workshops covering all topics listed above under "Technical Support."
- c) Timely reconciliation of wholesaler and retailer BMP reports as provided for above under "BMP Reporting."

Water Savings Assumptions

Not quantified.

E-4.53

WHOLESALE AGENCY ASSISTANCE PROGRAMS

Program Management

- e) When mutually agreeable and beneficial, the wholesaler may operate all or any part of the conservation-related activities which a given retail supplier is obligated to implement under the BMP's cost-effectiveness test. The inability or unwillingness of the wholesaler to perform this function, however, in no way relieves or reduces the retailer's obligation to fully satisfy the requirements of all BMPs which are judged cost-effective from the retailer's perspective.

Water Shortage Allocations

Wholesale agencies shall work in cooperation with their customers to identify and remove potential disincentives to long-term conservation created by water shortage allocation policies; and to identify opportunities to encourage and reward cost-effective investments in long-term conservation shown to advance regional water supply reliability and sufficiency.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1999.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the second year following the year the agency signed or became subject to the MOU.

Coverage Requirements

- a) Cost-effectiveness assessments completed for each BMP the agency is potentially obligated to support. The methodology used will conform to CUWCC standards and procedures, and the information reported will be sufficient to permit independent verification of the cost-effectiveness calculations and of any exemptions claimed on cost-effectiveness grounds.
- b) Agency avoided cost per acre-foot of new water supplies. The methodology used will conform to CUWCC standards and procedures, and the information reported will be sufficient to permit independent verification of the avoided cost calculations.

E-4.54

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BMP 11
CONSERVATION PRICING

Implementation

Implementation methods shall be at least as effective as eliminating nonconserving pricing and adopting conserving pricing. For signatories supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Signatories that supply water but not sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

- a) Nonconserving pricing provides no incentives to customers to reduce use. Such pricing is characterized by one or more of the following components: rates in which the unit price decreases as the quantity used increases (declining block rates); rates that involve charging customers a fixed amount per billing cycle regardless of the quantity used; pricing in which the typical bill is determined by high fixed charges and low commodity charges.
- b) Conservation pricing provides incentives to customers to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service; and billing for water and sewer service based on metered water use. Conservation pricing is also characterized by one or more of the following components: rates in which the unit rate is constant regardless of the quantity used (uniform rates) or increases as the quantity used increases (increasing block rates); seasonal rates or excess-use surcharges to reduce peak demands during summer months; rates based upon the long-run marginal cost or the cost of adding the next unit of capacity to the system.
- c) Adoption of lifeline rates for low income customers will neither qualify nor disqualify a rate structure as meeting the requirements of this BMP.

CUWCC Rate Impact Study

Within one year of the adoption of this BMP revision, the CUWCC shall undertake a study to determine the relative effect of conservation rate structure influence on landscape and indoor water use. The study shall develop sample areas that incorporate varying rate structure environments (e.g., low, uniform commodity rates; high uniform commodity rates; increasing block rates, etc.). As practical, the study shall utilize direct metering of customer end uses, and shall control for weather, climate, land use patterns, income, and other factors affecting water use patterns. If the study shows significant potential savings, as determined by a balanced committee of voting Council representatives, a revised pricing BMP containing numeric targets or other appropriate standards shall be developed for a CUWCC vote.

E-4.55

BMP 11
CONSERVATION PRICING

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.

Coverage Requirements

Agency shall maintain rate structure consistent with BMP 11's definition of conservation pricing

Requirements for Documenting BMP Implementation

- a) Report annual revenue requirement by customer class for the reporting period.
- b) Report annual revenue derived from commodity charges by customer class for the reporting period.
- c) Report rate structure by customer class for water service and sewer service if provided.

Criteria to Determine BMP Implementation Status

Agency rate design shall be consistent with the BMP 11's definition of conservation pricing.

Water Savings Assumptions

Not quantified.

E-4.56

BMP 12
CONSERVATION COORDINATOR

Implementation

Implementation shall consist of at least the following actions:

- a) Designation of a water conservation coordinator and support staff (if necessary), whose duties shall include the following:
 - i) Coordination and oversight of conservation programs and BMP implementation;
 - ii) Preparation and submittal of the CUWCC BMP Implementation Report;
 - iii) Communication and promotion of water conservation issues to agency senior management; coordination of agency conservation programs with operations and planning staff; preparation of annual conservation budget; participation in the CUWCC, including regular attendance at CUWCC meetings; and preparation of the conservation elements of the agency's Urban Water Management Plan.
- b) Agencies jointly operating regional conservation programs are not expected to staff duplicative and redundant conservation coordinator positions.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.

Coverage Requirements

Agency shall staff and maintain the position of conservation coordinator and provide support staff as necessary.

E-4.57

BMP 12
CONSERVATION COORDINATOR

Requirements for Documenting BMP Implementation

- a) Conservation Coordinator name, staff position, and years on job;
- b) Date Conservation Coordinator position created by agency;
- c) Number of Conservation Coordinator staff;
- d) Duties of Conservation Coordinator and staff.

Criteria to Determine BMP Implementation Status

- a) Creating and staffing a Conservation Coordinator position within the agency organization.
- b) Providing the Conservation Coordinator with the necessary resources to implement cost-effective BMPs and prepare and submit CUWCC BMP Implementation Reports.

Water Savings Assumptions

Not quantified.

E-4.58

BMP 13

WATER WASTE PROHIBITION

Implementation

Implementation methods shall be enacting and enforcing measures prohibiting gutter flooding, single pass cooling systems in new connections, nonrecirculating systems in all new conveyer car wash and commercial laundry systems, and nonrecycling decorative water fountains.

Signatories shall also support efforts to develop state law regarding exchange-type water softeners that would: (1) allow the sale of only more efficient, demand-initiated regenerating (DIR) models; (2) develop minimum appliance efficiency standards that (a) increase the regeneration efficiency standard to at least 3.350 grains of hardness removed per pound of common salt used; and (b) implement an identified maximum number of gallons discharged per gallon of soft water produced; (3) allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply.

Signatories shall also include water softener checks in home water audit programs and include information about DIR and exchange-type water softeners in their educational efforts to encourage replacement of less efficient timer models.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.

Coverage Requirements

Agency shall adopt water waste prohibitions consistent with the provisions for this BMP specified in Section A of this Exhibit.

BMP 13
WATER WASTE PROHIBITION

Requirements for Documenting BMP Implementation

Description of water waste prohibition ordinances enacted in service area.

Criteria to Determine BMP Implementation Status

Agency's water waste prohibition ordinances meet the requirements of the BMP definition.

Water Savings Assumptions

Not quantified.

E-4.60

RESIDENTIAL ULFT REPLACEMENT PROGRAMS

Implementation

Implementation shall consist of at least the following actions:

- a) Implementation of programs for replacing existing high-water-using toilets with ultra-low-flush (1.6 gallons or less) toilets in single-family and multi-family residences.
- b) Programs shall be at least as effective as requiring toilet replacement at time of resale; program effectiveness shall be determined using the methodology for calculating water savings in Exhibit 6 of this MOU.

After extensive review, on July 30 1992, the Council adopted EXHIBIT 6, "ASSUMPTIONS AND METHODOLOGY FOR DETERMINING ESTIMATES OF RELIABLE SAVINGS FROM THE INSTALLATION OF ULF TOILETS." EXHIBIT 6 provides a methodology for calculating the level of effort required to satisfy BMP 13.

Implementation Schedule

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- b) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.
- c) The coverage requirement for this BMP, as specified in Section C of this Exhibit, shall be realized within 10 years of the date implementation was to commence.

Coverage Requirements

Water savings from residential ULFT replacement programs to equal or exceed water savings achievable through an ordinance requiring the replacement high-water-using toilets with ultra-low-flow toilets upon resale, and taking effect on the date implementation of this BMP was to commence and lasting ten years.

E-4.61

RESIDENTIAL ULFT REPLACEMENT PROGRAMS

Requirements for Documenting BMP Implementation

- a) The number of single-family residences and multi-family units in service area constructed prior to 1992.
- b) The average number of toilets per single-family residence; the average number of toilets per multi-family unit.
- c) The average persons per household for single-family residences; the average persons per household for multi-family residences.
- d) The housing resale rate for single-family residences in service area; the housing resale rate for multi-family residences in service area.
- e) The number of ULFT installations credited to the agency's replacement program, by year.
- f) Description of ULFT replacement program
- g) Estimated cost per ULFT replacement
- h) Estimated water savings per ULFT replacement

NOTE: The following strike-out information now appears as Section G.

Criteria to Determine BMP Implementation Status

Calculated ULFT replacement program water savings at the end of each reporting period are within 10% of calculated retrofit-on-resale water savings, using Exhibit 6 methodology and water savings estimates.

Water Savings Assumptions

See Exhibit 6.

E - 4.62